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EXAMINER

HECK, MICHAEL C

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 08/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/608,356

Applicant(s)

SMIRNOV, YURI

Examiner

Michael C. Heck

Art Unit

3623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,39,40 and 50-130 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35,39,40,50-69 and 72-130 is/are rejected.
- 7) ☒ Claim(s) 70 and 71 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not). Original claims 1-34, 36-38, and 41-49 were canceled in the amendment filed 10 November 2003. The amendment filed 06 May 2004 added new claims 1-34, 36-38, and 41-49. The examiner notes that new claims 1-34, 36-38, and 41-49 are the same as the original claims with the exception that claims 1, 14, 30, 38, 44, 47, and 48 were amended. Therefore, new claims 1-34, 36-38, and 41-49 are to be renumbered.
2. Misnumbered claims 1-34 have been renumbered 85-118, claims 36-38 have been renumbered 119-121, and claims 41-49 have been renumbered 122-130.
3. This Final Office Action is responsive to applicant's amendment filed 06 May 2004. Applicant's amendment of 6 May 2004 amended claims 39 and 40 and added new claims 68-130. Currently, claims 35, 39, 40, and 50-130 are pending.

Response to Arguments

4. Applicant's arguments filed 6 May 2004 with respect to claims 35, 50, 53, 54, 56, and 60 have been fully considered but they are not persuasive. As to claim 35, 50, 53, 54, 56, and 60 applicant asserts that Henson (U.S. Patent 6,167,383) and Teresko et al. (Teresko et al., Calico Technology: Concinity configuration/quotation system, Industry

Art Unit: 3623

Week, Vol. 245, issue 23, December 16, 1996, p. 24-26 [PROQUEST]) teach a two party system, and even in combination do not teach the three party system of claim 35. The applicant further asserts there is no evidence within the cited art that these two systems would be compatible. The applicant also asserts Teresko et al. teach away from an automated seller system to manufacturing system exchange inherent in the limitations of claim 35. As to claim 60, applicant points out three different relationships among four different parties (consumer, seller, manufacturer, and vendor) and asserts there is no teachings within the cited art of three different relationships or four different parties.

In response, the examiner found further art concerning Concinity. Dilger (Dilger, Design by Desire, Manufacturing Systems, Vol. 16, Issue 3, March 1998, p. 62 [PROQUEST]) teaches the system currently is used by 20 in-house customer service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The system can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions –such as bills of material and product structure- and is updated to the production system. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. Using various third-party technologies, the solution includes a quote and proposal generator and marketing encyclopedia, which store product information for salespeople as well as on-line customers. The company is developing an integration package to link the system to Oracle Corp.'s ERP solutions. The combined solution will

extract an item master from the ERP system -which includes such data as part numbers and product attributes- and send it to Concinity in a format the configuration engine understands. With third party middleware, the system offers enhanced on-line performance by using an engine broker for load balancing (Para. 4, 7, and 28-30). The examiner interprets multiple Internet connections to include on-line customers, i.e. customers connected to the configurator, and the configurator connected to an enterprise wide manufacturing system, i.e. remote laptop integrated to a central server via a standard LAN dial-up connection. The examiner further interprets the configurator connected to an enterprise wide manufacturing system to be a product seller-manufacturer relationship. The examiner also interprets the IBM AS/400-based enterprise-wide manufacturing system provides the product updates and/or helps identify manufacturing incompatibilities, i.e. availability dates. Therefore, Concinity can function as a three party system or have three different relationships.

Henson teaches providing customer configured machines at an Internet site (Title) and Teresko et al and Dilger teach the Calico software enables customers to browse a vendor's options, configure their selections, and buy complex products or services online (Teresko et al.: p. 24, Para 3). Teresko et al. and Dilger compliment Henson without changing the principle of operation of Henson, therefore, they are compatible and do not teach away from the claimed invention. Henson, Teresko et al. and Dilger are in the same field of the applicant's endeavor.

5. Applicant's arguments filed 06 May 2004 with respect to claims 55, 62 and 65 have been considered but are not persuasive. Applicant asserts the in-process bill of

Art Unit: 3623

material is not necessarily the same as an in-process manufacturing bill of material. The applicant also asserts the second bill of material is something not found in either Henson or Teresko et al., even in combination.

In response, the examiner found further art concerning Concinnity of Teresko et al. in Dilger as indicated above, that can function as a three party system. Specifically, Dilger teaches that when a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions –such as bills of material and product structure- and is updated to the production system (Para 7). Since the completed configuration is the in-process bill of material that is sent to the company's product data management server, then the preproduction functions such as a bill of material is separate from the configuration bill of material. Since production implies manufacturing, then the preproduction bill of material equates to the manufacturing bill of material. Therefore, multiple bills of material can exist with Concinnity.

6. Applicant's arguments filed 06 May 2004 with respect to claims 39, 40, 62, 65 have been considered but are moot in view of the new ground(s) of rejection. The examiner notes the applicant amended claims 39 and 40. Please see the 35 U.S.C 112, second paragraph, and 103(a) rejections below.

7. Applicant's arguments filed 06 May 2004 with respect to claims 52 have been considered but are not persuasive. Applicant asserts that neither Henson nor Teresko et al. teach a three party system. The applicant is directed to the above response to claim 35. Applicant also asserts the teachings of Conklin et al. (U.S. Patent 6,141,653)

Art Unit: 3623

are not in the context of a product configuration system and asserts there exist no motivation to extend the teachings of Conklin et al. to a product configuration system.

In response, the examiner found further art concerning Concinity of Teresko et al. in Dilger as indicated above. Dilger teaches using various third-party technologies; the solution includes a quote and proposal generator and marketing encyclopedia, which store product information for salespeople as well as on-line customers (Para 28). Therefore, Concinity quote and proposal generator implies a give and take scenario where one party is to accept or reject an offer. In other words, negotiate. Conklin et al. is a system for interactive multivariate negotiations over a network and is in the same field of the applicant's endeavor, therefore, motivation to combine exist.

8. Applicant's arguments filed 06 May 2004 with respect to claims 51 have been considered but are not persuasive. Applicant traverses the Official Notice taken by the examiner to have a fully integrated ERP system that communicates changes across the entire supply chain. Applicant asserts that claim 51 recites a fourth party, "a vendor". Christopher (Christopher, Logistics and Supply Chain Management, Strategies for Reducing Cost and Improving Service, 1998, Financial Times Professional Limited) teaches the emergence of integrated logistics systems that link the operations of the business, such as production and distribution, with the supplier's operation on the one hand and the customer on the other. These systems are often referred to generically as Enterprise Planning Systems or Enterprise Resource Planning (ERP). Already it is the case that companies can literally link the replenishment of product in the marketplace with their upstream operations and those of their suppliers through the use of shared

information (p. 199, Para 2). The examiner interprets the production to supplier relationship of Christopher to be a manufacturer-vendor relationship as used in claim 51.

9. Applicant's arguments with respect to claims 68-130 have been considered but are moot in view of the new ground(s) of rejection. Examiner notes that claims 68-84 are new and claims 85-130, although considered new for this action, are amended, previously submitted, claims 1-34, 36-38, and 41-49 which were canceled in the amendment dated 10 November 2003. Please see the 35 U.S.C. 112, second paragraph, and 103(a) rejections below.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. **Claim 40, 65-67, 68-75, 83, 84, 98-113, 115, 116, 118, and 121-130** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to independent claims **40, 68, 83, 98, 111, 115, 118, 121, 125, and 128**, the applicant uses "supplier" to identify patentable distinct characteristics of an organization involved in executing the claimed invention, however, those distinct organizations are not made clear in the claims as written. The specification uses "supplier" in a variety of ways making the definition of supplier not clear, i.e., the function of supplying or a specific business entity. For example, in describing the

Art Unit: 3623

related art, the applicant states: "a manufacturer provides to the seller a price and availability quote estimating when the ordered product will be ready. The supplier can then give a price and availability quote to the customer" (p. 3, line 20-22). As indicated, supplier could mean a manufacturer, seller, or both, but distinct from the customer entity. The specification goes on, reiterates the distinction, and identifies three distinct classes of people or functions involved in the claimed invention by stating: "The present invention allows for greater flexibility in the relationship between consumers, product sellers and manufacturers" (p. 6, lines 1-2) with no mention of supplier, however, the distinction is not maintained throughout the balance of the specification. For example, the applicant states the configuration system in accordance with one embodiment of the present invention is comprised of a user interface, a configuration engine, a supplier system (e.g., a ERP/SCP system or other resource planning system), and an inventory library (p. 9, lines 19-22). No mention is made of a product seller or manufacturer. The examiner notes the applicant earlier in the specification identified the user as the consumer. The reference to ERP/SCP system or other resource planning system seems to imply a system employed by a manufacturing business. The applicant does not differentiate a supplier from a seller when describing the system configuration options that may arise depending on the nature of the business involved and the relationship between the parties involved (e.g., consumer, retailer, wholesaler, manufacturer, distributor, or vendor to manufacturer) (p. 12, amended lines 6-9). In other words, the consumer is a distinct entity and function, but the retailer, wholesaler, manufacturer, distributor, or vendor to manufacturer, were not classified into a functional

Art Unit: 3623

category of product seller and manufacturer. That is, the three categories of consumers, product sellers and manufacturers indicate a function whereas a retailer, wholesaler, manufacturer, distributor, or vendor to manufacturer indicates a "party" or type of business. In other words, any one of the businesses except consumer that are named above can perform the product seller function, manufacturer function, and/or supplier function. As to claim 98, the claim identifies a configuration application of a supplier for receiving a product feature selected by the customer and a communication module option coupled to the configuration application for communicating the selected product feature to the supplier. "Supplier" as used indicates different meanings: a product seller function and a business, i.e., manufacturer; only a functional relationship; or only a business relationship. Claims 111, 115, 118, 121, and 128 refer to only a supplier and as interpreted by the examiner indicates a two party system. Claim 40, as written indicates a distinct difference between a seller and supplier, for example, receiving a feature selection at a seller and providing the received selection to a supplier whether or not they represent functions or businesses. Claims 68, 83 and 125 indicate a supplier system in which it is not clear whether the system is a seller system or manufacturer system. Therefore, for examination purposes, the examiner interprets seller, retailer, wholesaler, manufacturer, distributor, or vendor to manufacturer and supplier as being synonymous.

As explained above, the same rejection above for claims 40, 68, 83, 98, 111, 115, 118, 121, 125, and 128 applies to claims **65-67, 69-75, 84, 99-110, 112, 113, 116, 122-124, 126, 127, 129, and 130.**

12. **Claims 39, 40, 62-67, 76-82 and 98-110** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. As to claims **39, 40, 76, and 98**, the applicant uses "constraints" to identify patentable distinct characteristics of a seller, manufacturer, and customer, whereby the meaning of "constraints" is different depending on whether the claim refers to a seller, manufacturer, or customer. For example and in summary, the specification states the configuration engine is coupled to the inventory library and to a supplier system (a seller and/or manufacturer). As the various product features are selected, the inventory library is updated to reflect all constraints imposed by those selections. As a result, the customer can be prevented from making a selection that would cause a violation (e.g., selecting two product features that are not compatible with one another). By showing all the features that are involved in the violation, the customer can be guided to alternate choices of features that both remedy the violations and are satisfactory to the customer. U.S. Patent No. 5,745,765 to Paseman discloses a configuration system that implements such concepts (Specification, p.10, line 10 to p. 11, line 6). Paseman states that for each component a list of available classes or types is established. Specific properties for each class are then defined. Constraints in using the various classes of components with other components are then defined using the properties as constrained variables (col. 1, line 38-44). Clearly, constraint, as used above, refers to a technical feature of the component or property that is not compatible with other technical features of selected components or properties. However, the specification indicates the customer is able to

Art Unit: 3623

constrain the configuration process based on the desired price and or availability dates, whether such constraints are applied to individual product features, or to the overall price and or availability date of a configured product (p. 5, lines 8-10). The specification and claims do not identify the capability of the customer to establish technical or property related constraints. As interpreted, claim 76 uses constraint to mean a technical feature of a component or property limitation as well as a price and/or availability date restriction as indicated in dependent claims 77 and 78. Therefore, for examination purposes, the examiner interprets constraint to mean a technical feature of a component or property limitation and/or a price restriction and/or an availability date restriction or any combination thereof.

As explained above, the same rejection above for claims 39, 40, 76, and 98 applies to claims **62-67, 77-82, and 99-110**.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. **Claim 35, 50, 55, 56, 60, 61, 68, 69, 72-74, 83-86, 91, 92, 96-99, 103-110, 118, 119, 129, and 130** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henson (U.S. Patent 6,167,383) in view of Teresko et al. (Teresko et al., Calico Technology: Concinity configuration/quotation system, Industry Week, Vol. 245, issue

Art Unit: 3623

23, December 16, 1996, p. 24-26 [PROQUEST]) and Dilger (Dilger, Design by Desire, Manufacturing Systems, Vol. 16, Issue 3, March 1998, p. 62 [PROQUEST]). The examiner notes that Teresko et al. and Dilger both refer to Calico Technology's Concinity system. Henson discloses extended product configuration techniques comprising:

- **[Claim 35]** receiving into a configuration application of the seller a selected feature (col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator. The configurator is provided for configuring a computer system with options selected according to a prescribed user input. Inherently, the on-line store application and system is of the seller.);
- receiving over the Internet an automated response including an availability date that corresponds to the selected feature (col. 2, lines 61-65, col. 6, lines 35-67, and col. 14, line 62 through to col. 15, line 8, Henson teaches a web-based online store wherein if any item has a lead time over three weeks, the lead time flags would be set within the online store. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon is presented to the online shopper upon the selection of a system option that has been identified as having a significant impact on the time of delivery of the system of interest. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested. Online shoppers can click on the warning icon and receive an estimated time to delivery. Inherently, the warning icon display is automatic once the update/refresh of the web page has been requested, and a web-based online store connotes action over the Internet.); and
- updating an in-process bill of materials to reflect that selected feature (col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.).

Art Unit: 3623

Henson fails to disclose communicating to a manufacturer the selected feature and receiving from the manufacturer an automated response including an availability date over the Internet that corresponds to the selected feature, wherein the availability date received from the manufacturer over the Internet is provided by a supply chain planning (SCP) system. The examiner notes, as indicated above, the manufacturer can either be a supplier or both the supplier and seller. Henson teaches an automated response including an availability date as indicated above. Teresko et al. teaches manufacturers can extend their enterprise-resource-planning (ERP) systems out to the Internet. The Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems (Page 24, Col. 3, Para 1, and Page 26, Col. 2, Para 3). Dilger teaches the system currently is used by 20 in-house customer service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The system can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions –such as bills of material and product structure– and is updated to the production system. As a result, today's "to order" manufacturers have tools to determine much more than whether or not a configuration can be built. They can control the entire order management process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds up time-to-market. Remote salespeople must be

Art Unit: 3623

able to run the configurator from a laptop on a single-user basis with integration to a central server for receiving product updates. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. Using various third-party technologies, the solution includes a quote and proposal generator and marketing encyclopedia, which store product information for salespeople as well as on-line customers. The company is developing an integration package to link the system to Oracle Corp.'s ERP solutions. The combined solution will extract an item master from the ERP system -which includes such data as part numbers and product attributes- and send it to Concinity in a format the configuration engine understands. With third party middleware, the system offers enhanced on-line performance by using an engine broker for load balancing (p. 4, 7,11, 12, and 28-30). The examiner interprets that a supply chain planning (SCP) system includes the enterprise-resource-planning (ERP) system of Teresko et al. and the enterprise-wide manufacturing system of Dilger. The examiner additionally interprets multiple Internet connections to include on-line customers, i.e. customers connected to the configurator, and the configurator connected to an enterprise wide manufacturing system, i.e. remote laptop integrated to a central server via a standard LAN dial-up connection. The examiner also interprets the IBM AS/400-based enterprise-wide manufacturing system provides the product updates and/or helps identify manufacturing incompatibilities. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to include communicating and receiving the selected features from a manufacturer via the manufacturer's ERP system with Henson since the teaching of

Art Unit: 3623

Teresko et al. and Dilger teach that it is old and well known in the sales quotation and configuration art that eliminating order errors improves customer satisfaction (Teresko et al.: p. 26, Col. 2, Para 2). Henson teaches the online store advantageously improves upon accuracy, reliability, and overall quality of an online buying experience (col. 3, lines 45-54). Customer satisfaction remains one of the top priorities of a company. Customer service means being able to quickly and accurately respond to customer's demands by ensuring the product meets all the customer requirements. Customers receiving excellent customer service and the product that meets their requirements would therefore ensure customer satisfaction.

- **[Claim 50]** repeating the steps of receiving into a configuration application a selected feature, communicating to a manufacturer the selected feature, receiving from the manufacturer an automated response including an availability date, and updating a number of times until the configuration is complete thereby yielding a completed bill of materials (Henson: col. 8, lines 45-55 and col. 3, lines 1-12, Henson teaches the customer can modify, change and/or delete an option and temporarily store the configured computer system prior to checkout. Dilger: Para 7, Dilger teaches the system currently is used by 20 in-house customer service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The system can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions – such as bills of material and product structure- and is updated to the production system.).
- **[Claim 55]** deriving, from the in-process bill of materials, an in-process manufacturing bill of materials that reflects the received availability date that corresponds to the selected feature (Teresko et al.: Page 26, col. 2, Para 3, Teresko et al. teaches Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems. Dilger: Para 7, Dilger teaches when a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions – such as bills of material and product structure- and is updated to the production system. The examiner interprets configuration to be the in-

Art Unit: 3623

process bill of material and the preproduction functions -such as bills of material and product structure- to be the in process manufacturing bill of material.).

- **[Claim 56]** receiving a price that corresponds to the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented).
- **[Claim 60]** a relationship between the customer and the seller has a configuration side associated with the customer, and a resource planning side associated with the seller, and that configuration side-resource planning side relationship is respectively one of a consumer-seller relationship, a seller-manufacturer relationship and a manufacturer-vendor relationship (Teresko et al.: Page 26, col. 2, Para 3, Teresko et al. teaches Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems. Dilger: Para 7 and 12, Dilger teaches remote salespeople must be able to run the configurator from a laptop on a single-user basis with integration to a central server for receiving product updates. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions –such as bills of material and product structure- and is updated to the production system. The examiner interprets the above to describe a seller-manufacturer relationship.).
- **[Claim 61]** in response to the price of the selected feature being determined on the configuration side, deriving an in-process pricing bill of materials from the in-process bill of materials, wherein the in-process pricing bill of materials reflects the price of the selected feature (Teresko et al.: Page 26, col. 2, Para 3, Teresko et al. teaches Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems. Henson: Col. 2, line 61 through to Col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented.); and
- in response to the price of the selected feature being determined on the resource planning side, deriving the in-process pricing bill of materials from an in-process manufacturing bill of materials that is derived from the in-process bill of materials and reflects the received availability date of the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, and col. 6, lines 31-67, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. A shipment delay indicator provides the

customer with any lead-time warnings or shipment delays associated with the selection of specific options and when the shopper clicks on the icon will receive an estimated time to delivery. Teresko et al.: Page 26, col. 2, Para 3, Teresko et al. teaches Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems.).

- **[Claim 68]** receiving, from a customer, a selection of a feature of the product at a configuration application of a seller of the product (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator. The configurator is provided for configuring a computer system with options selected according to a prescribed user input. Inherently, the on-line store application and system is of the seller of the product.);
- communicating the received selection from the configuration application to a supplier system (Dilger: Para 7, Dilger teaches the system currently is used by 20 in-house customer service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The system can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions –such as bills of material and product structure- and is updated to the production system. As indicated above, the supplier refers to both a product seller and a manufacturer.);
- receiving from the supplier system an automated response to the communicated received selection, the automated response including an availability date of the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. Dilger: Para 16 and 28, Dilger teaches a constraint-based product configurator is designed to assemble-to-order environments where a limited amount of products are produced based on well-understood designs. Order-entry operators lead customers through basic compatibility questions regarding features and options and provide information about product availability. Calico Technology's Concinity system is designed for configure- and assemble-to-order operations. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. As indicated above, the supplier refers to both a product seller and a manufacturer.);

Art Unit: 3623

- updating an in-process bill of materials based upon the availability date of the selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.); and
- using the updated in-process bill of materials to determine a first availability date of the product, the first availability date of the product being based on at least the availability date of the selected feature (Henson: col. 6, lines 31-67, Henson teaches an on-lone store application which includes configuration, pricing, validation, shipment delay indication, and merchandising modules. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon is presented to the online shopper upon the selection of a system option that has been identified as having a significant impact on the time to delivery of the system of interest.); and
- providing the first availability date of the product to the customer (Henson: col. 6, lines 31-67, Henson teaches the online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually-maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.).
- **[Claim 69]** the automated response is generated by a manufacturer of the selected feature (Henson: col. 2, line 65 to col. 3, line 4, Henson teaches the configurator is provided for configuring a computer system with options selected according to a prescribed user input. The options and a respective pricing for each option are presented on a configurator web page in accordance with the identification of the user belonging to a prescribed customer set. Dilger: Para 11 and 28, Dilger teaches Calico Technology's Concinity system is designed for configure- and assemble-to-order operations. The configurator loads all rules and constraints in memory, evaluates each pick as it is made and automatically provides feedback. As a result, today's "to-order" manufacturers have tools to determine much more than whether or not a configuration can be built. They can control the entire order management process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing,

Art Unit: 3623

and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds time-to-market.),

- **[Claim 72]** the first availability date of the product, determined using the updated in-process bill of materials, is further based on an availability date of another selectable feature (Henson: col. 2, line 61 through to col. 3, line 12, col. 6, lines 31-67, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. Dilger: Para 11, 16 and 28, Dilger teaches a constraint-based product configurator is designed to assemble-to-order environments where a limited amount of products are produced based on well-understood designs. Order-entry operators lead customers through basic compatibility questions regarding features and options and provide information about product availability. Calico Technology's Concinity system is designed for configure-and assemble-to-order operations. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions, which eliminates errors, and speeds time-to-market.).
- **[Claim 73]** receiving, at the configuration application, a feature price that corresponds to the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented).
- **[Claim 74]** updating a product price responsive to the received feature price, and providing the updated product price to the customer (Henson: col. 6, lines 21-25, Henson teaches the pricing option module includes an update pricing function. The update price function causes the price displayed on the configuration screen to reflect any changes made to the system options).
- **[Claim 83]** receiving, from a customer, a selection of a feature of the product, at a configuration application of a seller of the product (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system that includes a configurator. The configurator is provided for configuring a computer system with options selected according to a

Art Unit: 3623

prescribed user input. Inherently, the on-line store application and system is of the seller of the product.);

- communicating the received selection from the configuration application to a supplier system of a manufacturer (Dilger: Para 7, Dilger teaches the system currently is used by 20 in-house customer service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The system can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions – such as bills of material and product structure- and is updated to the production system.);
- receiving from the manufacturer an automated response to the communicated received selection, the automated response including an availability date of the selected feature or a price of the selected feature (Henson: col. 2, line 61 through to col. 3, line 12, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. Dilger: Para 11, 16 and 28, Dilger teaches a constraint-based product configurator is designed to assemble-to-order environments where a limited amount of products are produced based on well-understood designs. Order-entry operators lead customers through basic compatibility questions regarding features and options and provide information about product availability. Calico Technology's Concinity system is designed for configure-and assemble-to-order operations. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. As a result, today's "to-order" manufacturers have tools to determine much more than whether or not a configuration can be built. They can control the entire order management process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds time-to-market.);
- updating an in-process bill of materials using the automated response (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.);

Art Unit: 3623

- using the updated in-process bill of materials to determine an availability date of the product and a price of the product based on the received selection (Henson: col. 2, line 61 through to col. 3, line 12, col. 6, lines 31-67, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. The online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery. Dilger: Para 11, 16 and 28, Dilger teaches a constraint-based product configurator is designed to assemble-to-order environments where a limited amount of products are produced based on well-understood designs. Order-entry operators lead customers through basic compatibility questions regarding features and options and provide information about product availability. Calico Technology's Concinity system is designed for configure- and assemble-to-order operations. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions, which eliminates errors, and speeds time-to-market.) ; and
- providing, to the customer, the determined first availability date of the product and the determined price of the product (Henson: col. 6, lines 31-67, Henson teaches the online store application includes configuration, pricing, validation, shipment delay indication, and merchandising modules. Online shoppers can click on the warning icon and receive a manually-maintained listing of all items currently marked as significantly extending system delivery with an estimated time to delivery.).
- **[Claim 84]** communicating the received selection from the configuration system to the supplier system includes communicating using the Internet (Hanson: col. 5, line 66 to col. 6, line 1, Henson teaches a customer can access the online store using any suitable computer equipment, via the Internet.).
- **[Claim 85]** receiving into a configuration application of the seller a selected feature, from the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);

Art Unit: 3623

- communicating from the seller to a manufacturer the selected feature (Teresko et al.: Page 24, col. 3, Para 1, and Page 26, col. 2, Para 3, Teresko et al. teaches manufacturers can extend their enterprise-resource-planning (ERP) systems out to the Internet. The Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems. Dilger: Para 7, Dilger teaches that when a configuration is complete, it is sent to the company's product data management server that drives the preproduction functions – such as bills of material and product structure- and is updated to the production system.);
- receiving from the manufacturer an automated response including an availability date that corresponds to the selected feature (Henson: col. 6, lines 35-67, and col. 14, line 62 through to col. 15, line 8, Henson teaches if any item has a lead time over three weeks, the lead time flags would be set within the online store. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons. Online shoppers can click on the warning icon and receive an estimated time to delivery.); and
- updating an in-process bill of materials to reflect that selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or bill of material is updated.);
- **[Claim 98]** a configuration application of a supplier for receiving a product feature selected by the customer, and for validating a number of constraints associated with that product feature (Henson: Figure 1, col. 2, lines 65-67, and col. 7, lines 57-66, Henson teaches a configurator is provided for configuring a computer system with options selected according to a user input. The online store includes validation of a configuration built by a customer whereby a validation message is sent indicating an occurrence of when the options selected are not correct or will adversely affect the shipment.);

Art Unit: 3623

- a communication module coupled to the configuration application for communicating the selected product feature to the supplier, and for communicating over the internet an availability date of that product feature from the supplier to the configuration application (Henson: Figure 1, col. 4, lines 53-62 and col. 6, lines 31-67, Henson teaches an enhanced online store user interface which enables the system configuration, pricing, and ordering of a computer system via the Internet. The online store has a shipment delay indicator that provides the customer with advance notice that a particular option will result in a shipment delay. The indicator may further include an indication of a certain amount of time for a delay with an estimated time to delivery. The examiner interprets the online store user interface or I/O device to be part of the communication module. Teresko et al.: Page 24, col. 3, Para 1, and Page 26, col. 2, Para 3, Teresko et al. teaches manufacturers can extend their enterprise-resource-planning (ERP) systems out to the Internet. The Calico sales quotation and configuration software integrates with ERP systems and eliminates the need for sales and manufacturing to maintain separate configuration systems. Dilger: Para. 4, 7, 11, 12, and 28-30, Dilger teaches the system currently is used by 20 in-house customer service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The system can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions—such as bills of material and product structure- and is updated to the production system. As a result, today's "to order" manufacturers have tools to determine much more than whether or not a configuration can be built. They can control the entire order management process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds up time-to-market. Remote salespeople must be able to run the configurator from a laptop on a single-user basis with integration to a central server for receiving product updates. The configurator loads all rules and constraints in memory, evaluates each pick as it is made, and automatically provides feedback. Using various third-party technologies, the solution includes a quote and proposal generator and marketing encyclopedia, which store product information for salespeople as well as on-line customers. The company is developing an integration package to link the system to Oracle Corp.'s ERP solutions. The combined solution will extract an item master from the ERP system -which includes such data as part numbers and product attributes- and send it to Concinity in a format the configuration engine understands. With third party middleware, the system offers enhanced on-line performance by using an engine broker for load balancing. The examiner interprets that a supply chain planning (SCP) system includes the enterprise-resource-planning (ERP) system of Teresko et al. and the

enterprise-wide manufacturing system of Dilger. The examiner additionally interprets multiple Internet connections to include on-line customers, i.e. customers connected to the configurator, and the configurator connected to an enterprise wide manufacturing system, i.e. remote laptop integrated to a central server via a standard LAN dial-up connection. The examiner also interprets the IBM AS/400-based enterprise-wide manufacturing system provides the product updates and/or helps identify manufacturing incompatibilities.); and

- a first storage area coupled to one of the configuration application and the communication module for storing an in-process bill of materials that reflects the product feature selected by the customer (Henson: Figure 1, col. 3, lines 4-6, and col. 5, lines 9-13, and 57-58, Henson teaches the configurator, cart, and checkout are driven off the database. The cart provides temporary storage of the customer configured computer system.);
- **[Claim 104]** a second storage area coupled to one of the configuration application and the communication module for storing an in-process manufacturing bill of materials that reflects the availability date of the selected product feature; and a third storage area coupled to one of the configuration application and the communication module for storing an in-process pricing bill of materials that reflects a price of the selected product feature (Henson: Figure 1 and 11, col. 4, line 53 through to col. 5, line 5, and col. 6, lines 5-51, Henson teaches a hard disk drive and other storage devices all interconnected via one or more buses. The commerce application includes a configurator and database. The database provides information to the configurator which includes a pricing module, a view module, a lead time warning module, and a merchandising module.);
- **[Claim 105]** the communication module is also for communicating a price of the selected product feature from the supplier to the configuration application (Henson: Figure 1, col. 2, line 61 through to col. 3, line 11, Henson teaches a commerce application where options selected by the user receive a price that is displayed on a configurator web page).
- **[Claim 106]** an availability date communication module for communicating the availability date of the selected product feature from the supplier to the configuration application (Figure 1, Col. 6, lines 31-67, Henson teaches a lead time module with a shipment delay indicator that provides the customer with any lead time warnings or shipment delays associated with selection of specific options);
- and a price communication module for communicating the price of the selected product feature to the configuration application (Figure 1, col. 2, line

Art Unit: 3623

61 through to col. 3, line 12, Henson teaches pricing module as part of a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented).

- **[Claim 109]** a user interface coupled to the configuration application for allowing the customer to interact with the system (Henson: Figure 11, col. 2, lines 61-67, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system).
- **[Claim 110]** an inventory library coupled to the configuration application for providing the customer a number of product features that can be selected to configure the product (Henson: Figure 1, col. 3, lines 13-29, Henson teaches the configurator coupled to a database and includes merchandising recommendations for available options that are presented on the configurator web page. The examiner interprets the database to be the inventory library.).
- **[Claim 119]** the availability date received from the manufacturer over the Internet is provided by an enterprise resource planning (ERP) system (Henson: col. 2, line 61 through to col. 3, line 12, and col. 6, lines 31-67, Henson teaches a web-based online store enabling a customer to custom configure a computer system where options and a respective price for each option is presented. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays associated with the selection of specific options and when the shopper clicks on the icon will receive an estimated time to delivery. Teresko et al.: Page 26, Col. 2, Para 3, Teresko et al. teaches the Calico's Concinity configuration/quotation software integrates with ERP systems and automatically translates bills of materials into constraint- and role- based models that can rapidly be deployed on the Internet. It eliminates the need for sales and manufacturing to maintain separate configuration systems. The examiner interprets a lead-time warning to indicate a constraint.).
- **[Claim 129]** the customer is chosen from one of the set of retailer and wholesaler and manufacturer and distributor of the product (Henson: col. 13, line 6-28, Henson teaches a personal and business customer where a business online store is created. The examiner interprets a business to any one of a retailer, wholesaler, manufacturer, or distributor.).
- **Claim 130]** the supplier is chosen from one of the set of retailer and wholesaler and manufacturer and distributor and vendor (Teresko et al.: Page 24, col. 3, Para 1 and 3, and Page 26, col. 2, Para 1, Teresko et al teaches the Calico software enabled manufacturers to extend their ERP systems out to the Internet, enables customers to browse a vendor's options, and is designed to handle product complexity associated with the business-to-

Art Unit: 3623

business market. The examiner interprets business to include anyone of the set of retailer and wholesaler and manufacturer and distributor and vendor.).

Claims 86, 91, 92, 96, 97, 99, 103, 107, 108 and 118 recite substantially the same limitations as that of claims 50, 55, 56, 60, 61, and 98 with the distinction of the recited method and system being a method and system. Hence the same rejection for claims 50, 55, 56, 60, 61, and 98 as applied above applies to claims 86, 91, 92, 96, 97, 99, 103, 107, 108, and 118. The examiner notes as indicated above that supplier refers to the seller and manufacturer.

15. **Claims 51 and 87** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henson (U.S. Patent 6,167,383) , Teresko et al. (Teresko et al., Calico Technology: Concinity configuration/quotation system, Industry Week, Vol. 245, issue 23, December 16, 1996, p. 24-26 [PROQUEST]) and Dilger (Dilger, Design by Desire, Manufacturing Systems, Vol. 16, Issue 3, March 1998, p. 62 [PROQUEST]) in view of Christopher (Christopher, Logistics and Supply Chain Management, Strategies for Reducing Cost and Improving Service, 1998, Financial Times Professional Limited). The examiner notes that Teresko et al. and Dilger both refer to Calico Technology's Concinity system. Henson, Teresko et al. and Dilger disclose extended product configuration techniques but fail to teach the step of receiving from the manufacturer an automated response including an availability date is preceded by the step of: communicating the selected feature to a vendor. Christopher teaches the emergence of integrated logistics systems that link the operations of the business, such as production

Art Unit: 3623

and distribution, with the supplier's operation on the one hand and the customer on the other. These systems are often referred to generically as Enterprise Planning Systems or Enterprise Resource Planning (ERP). Already it is the case that companies can literally link the replenishment of product in the marketplace with their upstream operations and those of their suppliers through the use of shared information (p. 199, Para 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to have a planning and control system that communication across the entire supply chain. Cycle time is an important measure of competitiveness of a company. Being able to reduce total cycle time becomes an advantage for companies. Having a fully integrated ERP system from sales down to the vendors reduces the time for communicating all the requirements, therefore, giving the companies a competitive advantage.

16. Claims **39, 52-54, 57-59, 62-64, 75, 88-90, 93-95, 100-102, 111-116, and 120-128** are rejected under 35 U.S.C. 103(a) as being unpatentable over Henson (U.S. Patent 6,167,383), Teresko et al. (Teresko et al., Calico Technology: Concinity configuration/quotation system, Industry Week, Vol. 245, issue 23, December 16, 1996, p. 24-26 [PROQUEST]) and Dilger (Dilger, Design by Desire, Manufacturing Systems, Vol. 16, Issue 3, March 1998, p. 62 [PROQUEST]) in view of Conklin et al. (U.S. Patent 6,141,653). The examiner notes that constraint is interpreted to be a technical feature of a component or property limitation and/or a price restriction and/or an availability date

Art Unit: 3623

restriction or any combination thereof. Henson, Teresko et al. and Dilger disclose extended product configuration techniques comprising:

- **[Claim 39]** receiving a feature selection at a seller (col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);
- updating an inventory library based upon the received selection to reflect constraints imposed by the received selection (col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Dilger: Para 16, Dilger teaches a constraint-based product configurator id designed for assemble-to-order environments where a limited amount of products are produced based on well understood designs, In this type of operation, order-entry operators lead customers through basic compatibility questions regarding features and options and provide information about product availability.);
- providing the received selection to a supplier (Dilger: Para 7, Dilger teaches when a configuration is complete, it is sent to the company's product data management server that drives its preproduction functions –such as bills of material and product structure- and is updated to the production system);
- receiving information from the supplier comprising at least one of availability date and price for the received selection (Col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive and estimated time to delivery.);
- updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials based on the received selection (Col. 5, line 55 through to Col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom

Art Unit: 3623

configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or configuration bill of material is updated.).

Henson, Teresko et al. and Dilger fail to teach, where customer desires are not satisfied, providing at least one of a customer desired availability date and a customer desired price for the selection, providing accommodation data from the supplier, the accommodation data responsive to at least one of the customer desired availability date and the customer desired price for the selection and wherein the customer desires comprise either at least one of a plurality of availability dates or at least one of a plurality of prices for the selected feature. Conklin et al. teaches a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. An internal database contains the history of all transactions, so that sponsors, buyers, and sellers may retrieve appropriate records to document each stage of interaction and negotiation (Col. 13, line 66 through to Col. 14, line 31). The examiner interprets “iterative” in this application to mean repeating the process in which a plurality of availability dates and/or a plurality of prices are displayed over a period of time and recorded until the process is complete. It is old and well known in the negotiation art to negotiate both price and delivery of product concurrently. It would have been obvious to one of ordinary skill in the art at the time of the

Art Unit: 3623

applicant's invention to include a multivariate negotiation engine with Henson, Teresko et al. and Dilger since Dilger teaches the Concinnity system's configurator uses various third party technologies where the solution includes a quote and proposal generator (Para 28). Companies realize the cost advantage of doing business over the Internet. Allowing the customer to negotiate price, terms, conditions, etc. over the Internet would minimize the need for the customer to physically go to a company's place of business. The customer having the ability to negotiate all aspects of doing business with the company over the Internet would reduce the overall cost of the transaction for both the customer and company.

- **[Claim 52]** in response to the received availability date being unsatisfactory to the customer, communicating a customer specified availability date to at least one of the seller and manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.).
- **[Claim 53]** wherein the availability date received from the manufacturer is in response to a customer specified availability date communicated to at least one of the seller and manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.).
- **[Claim 54]** wherein the availability date received from the manufacturer is in response to a customer specified price communicated to at least one of the seller and manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative

bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.).

- **[Claim 57]** in response to the received price being unsatisfactory to the customer, communicating a customer specified price to at least one of the seller and manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price.).
- **[Claim 58]** wherein the price received is in response to a customer specified availability date communicated to at least one of the seller and manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms and condition to include availability date.).
- **[Claim 59]** wherein the price received is in response to a customer specified price communicated to at least one of the seller and manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price.).
- **[Claim 62]** wherein the pricing bill of materials is derived from the configuration bill of materials (Henson: Figure 1, col. 4, line 53 through to col. 5, line 5, col. 6, lines 55-65, Henson teaches the entire configurator is driven by the database. The configurator includes a pricing module. The examiner interprets that once a customer selects or configures their system the pricing

module then established a price for the selected feature, therefore the pricing bill of material is derived from the configuration bill of material.).

- **[Claim 63]** the pricing bill of materials is derived from the manufacturing bill of materials (Teresko et al.: Page 26, Col. 2, Para 3, Teresko et al. teaches the Calico's Concinity configuration/quotation software integrates with ERP systems and automatically translates bills of materials into constraint- and role- based models that can rapidly be deployed on the Internet. It eliminates the need for sales and manufacturing to maintain separate configuration systems. Dilger: Para 7 and 11, Dilger teaches that when a configuration is complete, it is sent to the company's product data management server that drives the preproduction functions – such as bills of material and product structure- and is updated to the production system. As a result, today's "to order" manufacturers have tools to determine more than whether or not a configuration can be built. They can control the entire order management process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds time-to-market. The examiner interprets the manufacturing system has a direct impact on the pricing bill of material to eliminate errors.).
- **[Claim 64]** the step of updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials is based upon the accommodation data from the supplier (Teresko et al.: Page 24, col. 3, Para 1, and Page 26, col. 2, Para 3, Teresko et al. teaches manufacturers can extend their enterprise-resource-planning (ERP) systems out to the Internet. The Calico sales quotation and configuration software integrates with ERP systems and automatically translates bills of materials into constraint- and role- based models that can rapidly be deployed on the Internet. The system eliminates the need for sales and manufacturing to maintain separate configuration systems. Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. Since the same configuration system is maintained between sales and manufacturing, then the supplier as being defined as the manufacturer can make accommodations.).
- **[Claim 75]** the received feature price is responsive to a customer specified availability date communicated to the seller and to the manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a

buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price.).

- **[Claim 111]** communicating a customer selected product feature to the supplier (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. The examiner interprets the system to be that of the seller and as indicated above, the seller and supplier are considered the same.);
- receiving from the supplier an availability date that corresponds to that selected product feature (Henson: col. 6, lines 35-67, and col. 14, line 62 through to col. 15, line 8, Henson teaches if any item has a lead time over three weeks, the lead time flags would be set within the online store. The shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons. Online shoppers can click on the warning icon and receive an estimated time to delivery.);
- in response to the availability date being unsatisfactory to the customer, communicating a customer specified availability date to the supplier (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.);
- receiving from the supplier an automated response including an accommodation based on the customer specified availability date (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with

Art Unit: 3623

a customer. The examiner interprets availability date to be a terms and conditions.).

- **[Claim 112]** updating a bill of materials to reflect the accommodation received from the supplier (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the configuration or in-process bill of material is updated.).
- **[Claim 113]** the accommodation is one of an availability date that satisfies the customer specified availability date, and a reduced price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.).
- **[Claim 117]** in response to the computer program product being executed by a processor, the processor performs the steps of: responsive to a customer selecting a feature of the product, receiving from a manufacturer over the Internet an automated response including an availability date that corresponds to that selected feature (Henson: col. 2, lines 61-67, col. 3, lines 61-67, col. 6, lines 5-17 and 31-43, and col. 7, lines 1-12, Henson teaches a web-based online store using a computer system with a central processing unit. The online store application and system includes a configuration module and a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. A shipment delay indicator provides the customer with advance notice that a particular option will result in a shipment delay. The warning icon and associated messaging are made present in the configurator once an update/refresh of the web page has been requested, for example, through clicking on any of a number of store navigation or action buttons. Online shoppers can click on the warning icon and receive an estimated time to delivery. Dilger: Para 7 and 11, Dilger teaches that when a configuration is complete, it is sent to the company's product data management server that drives the preproduction functions – such as bills of material and product structure- and is updated to the production system. As a result, today's "to order" manufacturers have tools to determine more than whether or not a configuration can be built. They can control the entire order management

process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds time-to-market.);

- responsive to the received availability date being unsatisfactory to the customer, communicating a customer specified availability date to the manufacturer (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.)
- updating an in-process bill of materials to reflect that selected feature (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or bill of material is updated.); and
- in response to the customer being satisfied with a set of sales parameters including the availability date of the selected feature, submitting a completed bill of materials to the manufacturer over the Internet (Teresko et al.: Page 24, col. 3, Para 1, and Page 26, col. 2, Para 3, Teresko et al. teaches manufacturers can extend their enterprise-resource-planning (ERP) systems out to the Internet. The Calico sales quotation and configuration software integrates with ERP systems and automatically translates bills of materials into constraint- and role- based models that can rapidly be deployed on the Internet.).
- **[Claim 120]** wherein the step of communicating a customer specified availability date to the manufacturer is followed by receiving from the manufacturer an automated response including an accommodation in response to the customer specified availability date (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teach a multivariate negotiation engine for iterative bargaining. The system allows a buyer/participant to search and evaluate seller information, propose and negotiate orders and counteroffers that include all desired terms. The system provides comprehensive iterative bargaining abilities for both buyers

Art Unit: 3623

and sellers that enable them to negotiate all the terms and conditions of a transaction – not just the price. The examiner interprets terms to include availability date.).

- **[Claim 121]** receiving at a seller a feature selection by the customer (Henson: col. 2, lines 61-67, and col. 6, lines 31-43, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input.);
- updating an inventory library based upon the received selection to reflect constraints imposed by the received selection (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or bill of material is updated. Dilger: Para 7 and 11, Dilger teaches that when a configuration is complete, it is sent to the company's product data management server that drives the preproduction functions – such as bills of material and product structure- and is updated to the production system. As a result, today's "to order" manufacturers have tools to determine more than whether or not a configuration can be built. They can control the entire order management process. By solving possible manufacturing incompatibilities upfront during order entry, and providing costing, pricing, and other sales analysis data, companies can make better decisions earlier, which eliminates errors and speeds time-to-market. Inherently, production system includes an inventory library.);
- providing the received selection to a supplier (Henson: col. 4, lines 53-62 and col. 6, lines 31-67, Henson teaches an enhanced online store user interface which enables the system configuration, pricing, and ordering of a computer system via the Internet. The examiner interprets the online store to be the supplier.);
- receiving information from the supplier comprising at least one of availability date and price for the received selection (Henson: col. 6, lines 18-67, Henson teaches the pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur

as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive and estimated time to delivery.);

- where customer desires are not satisfied, providing at least one of a customer desired availability date and a customer desired price for the selection (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.);
- displaying accommodation data from the supplier corresponding to the customer desires (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.); and
- updating at least one of a manufacturing bill of materials, a pricing bill of materials, and a configuration bill of materials based on the selection (Henson: col. 5, line 55 through to col. 6, line 30, Henson teaches the configurator, shopping cart, and checkout are part of the commerce application and are driven by the database. The customer via the online store builds a custom configured machine by selecting from the options listed on the configuration screen. Upon obtaining a desired configuration, a customer adds the configured system to the shopping cart. Inherently, as the customer selects the features desired, the in-process configuration or configuration bill of material is updated.);
- **[Claim 126]** wherein the user interface, configuration engine, and supplier system are remotely located with respect to each other (Henson: col. 2, lines 61-65, Henson teaches a web-based online store having a user interface for enabling a custom configuration of a computer system. Dilger: Para 7, Dilger teaches the system currently is used by 20 in-house service reps in conjunction with an IBM AS/400-based enterprise wide manufacturing system. The systems can be used remotely, deployed on laptops via a standard LAN dial-up connection. When a configuration is complete, it is sent to the company's product data management server that drives the

Art Unit: 3623

preproduction functions – such as bills of material and product structure- and is updated to the production system.).

- **[Claim 128]** providing to a customer a selectable feature and at least one of price and availability date of the selectable feature (Henson: col. 2, lines 61-67, and col. 6, lines 18-67, Henson teaches an online store application and system which includes a configuration module. The web-based online store has a user interface for enabling a custom configuration of a computer system based on the options selected according to a prescribed user input. A pricing option module includes an update price function that causes the price displayed on the configuration screen to reflect any changes made to the system options. A shipment delay indicator provides the customer with any lead-time warnings or shipment delays which would occur as a result of the selection of specific options. Online shoppers can click on a long lead time icon that is displayed adjacent to each item affected and receive and estimated time to delivery.);
- conveying to the supplier at least one of a customer desired availability date and a customer desired price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.); and
- supplying an automated response to a seller, the automated response including an accommodation from the supplier based on the at least one of a customer desired availability date and a customer desired price (Conklin et al.: col. 13, line 66 through to col. 14, line 31, Conklin et al. teaches a multivariate negotiation engine for iterative bargaining that enables participants such as a customer and supplier to search and evaluate supplier information, propose, and negotiate orders and counteroffers. All multiple variables such as prices, terms, conditions, etc. are iteratively negotiated with a customer. The examiner interprets availability date to be a terms and conditions.).

Claims 88-90, 93-95, 100-102, 114-116, 122-125, and 127 recite substantially the same limitations as that of claims 52-54, 57-59, 62-64, 111-113, and 121 with the distinction of the recited method being a method, system, product, and computer

program product. Hence the same rejection for claims 52-54, 57-59, 62-64, 111-113 and 121 as applied above applies to claims 65-67, 88-90, 93-95, 100-101, 114-116, 122-125 and 127. The examiner notes as indicated above that supplier refers to the seller and manufacturer.

Allowable Subject Matter

17. **Claim 40** with dependent claims **65-67** and **claim 76** with dependent claims **77-82** would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

18. **Claims 70 and 71** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims after being written to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 3623

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Heck whose telephone number is (703) 305-8215. The examiner can normally be reached Monday thru Friday between the hours of 8:00am - 4:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq R. Hafiz can be reached on (703) 305-9643. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113. Any response to this action should be mailed to:

**Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450**

Or faxed to:

(703) 872-9306 [Official communications; including After Final communications labeled "**Box AF**"]

(703) 746-9419 [Informal/Draft communication, labeled "**PROPOSED**" or "**DRAFT**"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, Virginia, and the 7th floor receptionist.

mch
Date



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